

REMARKS/ARGUMENTS

Favorable reconsideration and allowance of the present application is respectfully requested. Claims 1-36 are pending in the above application, of which claims 1, 26 and 36 are independent. By the above amendment, claims 33-36 have been added.

The Office Action dated December 11, 2009, has been received and carefully reviewed. In that Office Action, claim 8 was rejected under 35 U.S.C. 112, first paragraph, as not being supported by the specification, and claims 8, 9, 24, 25 and 27 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite. In addition, claims 1, 10-12, 14, 17-19, 21, 23, 26 and 28-32 were rejected under 35 U.S.C. 102(b) as being anticipated by EP 1070928 (hereinafter "Daikin"), claims 2-4, 9, 15 and 16 were rejected under 35 U.S.C. 103(a) as being unpatentable over Daikin in view of Dahlgren, claims 5, 6 and 20 were rejected under 35 U.S.C. 103(a) as being unpatentable over Daikin in view of Dahlgren and further in view of Wand, claim 7 was rejected under 35 U.S.C. 103(a) as being unpatentable over Daikin in view of WO 85/02670 (hereinafter "Alfa-Laval"), claims 8 and 22 were rejected under 35 U.S.C. 103(a) as being unpatentable over Daikin in view of Joel, and claims 24, 25 and 27 were rejected under 35 U.S.C. 103(a) as being unpatentable over Daikin in view of Leuthner. Objections to the specification and claims were also raised. It is believed that all pending claims patentably distinguish over the art of record, and reconsideration and allowance of claims 1-36 is respectfully requested in view of the above amendments and the following remarks.

OBJECTION TO SPECIFICATION

The specification was objected to for lacking section headings. By the above amendment, section headings have been added to the specification. In addition, the abstract of the disclosure has been rewritten to remove legal terminology, such as "said," and the word "consisting" has been removed from the specification. No new matter has been added.

CLAIM OBJECTION

Claim 5 was objected for lacking a claim number. The numeral "5" has been inserted before the fifth claim to address this issue.

REJECTION UNDER 35 U.S.C. 112, FIRST PARAGRAPH

Claim 8 was objected to for being directed to subject matter that was not described in the specification. By the above amendment, language supporting claim 8 has been added to the specification. As provided by MPEP 2163.06, the originally filed claims comprise a part of the original disclosure and can be used to support a later amendment to the specification. The specification now includes support for the limitations of claim 8, and the withdrawal of the rejection of claim 8 under 35 U.S.C. 112, first paragraph, is respectfully requested.

REJECTION UNDER 35 U.S.C. 112, SECOND PARAGRAPH

Claims 8, 9, 24, 25 and 27 were rejected as being indefinite for including narrow ranges within broad ranges. This issue has been addressed by the above

amendments. Wherefore, the withdrawal of the rejections of claims 8, 9, 24, 25 and 27 under 35 U.S.C. 112, second paragraph, is respectfully requested.

REJECTIONS UNDER 35 U.S.C. 102(b)

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Daikin. Claim 1 recites, inter alia, a heat exchanger for motor vehicles that is formed from interconnected plates, there being formed between the plates cavities which are closed off outwardly and through which a first and a second medium flow alternately in each case via at least one inflow line and outflow line. The plates are profiled in such a way that, between the respective profiles of the plates, contact points occur, in the region of which the plates are fastened to one another, wherein the profiles of the plates and their contact points are designed in such a way that the flow, formed between the plates, of the first and the second medium from the corresponding inflow line to the corresponding outflow line does not run rectilinearly. In addition, the plates have a recurring wavy profile comprising legs running rectilinearly between regions of curvature.

Daikin shows a heat exchanger that includes plates having a herringbone pattern of ridges. However, linear sections of these ridges meet at an angle, as illustrated in Figure 2, for example, and are not connected at regions of curvature as recited in amended claim 1. The remaining references also fail to show legs running rectilinearly between regions of curvature as recited in claim 1. Claim 1 as amended is submitted to be allowable over Daikin for at least this reason.

Claims 2-25 and 27-35 depend from claim 1 and are submitted to be allowable

for at least the same reasons as claim 1.

Claim 26 was rejected under 35 U.S.C. 102(b) as being anticipated by Daikin. By the above amendment, claim 26 has been rewritten in independent form, but the scope of the claim has not been changed. Claim 26 recites, in addition to the limitations of original claim 1, that contact points between two plates adjacent to one another are distributed uniformly over the plate surface. Daikin includes ridges and valleys that "engage" one another (paragraph 0064), or, in other words, ridges from one plate extend into the valleys of an adjacent plate. No contact between the ridges and valleys is described; instead, it appears that Daikin shows that the plates are attached around their peripheries and near the inlet and outlet openings. Daikin does not show uniformly distributed contact points as recited in claim 26, the art of record does not suggest modifying Daikin to include uniformly distributed contact points, and claim 26 is submitted to be allowable over the art of record for at least this reason.

REJECTIONS UNDER 35 U.S.C. 103(a)

Claims 2-4, 9, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daikin in view of Dahlgren. Claims 2-4, 9, 15 and 16 depend from claim 1. Dahlgren does not address the shortcomings of Daikin discussed above in connection with claim 1. Claims 2-4, 9, 15 and 16 are therefore submitted to be allowable for at least the same reasons as claim 1.

Claims 5, 6 and 20 were rejected under 35 U.S.C. 103(a) as being unpatentable over Daikin in view of Dahlgren and further in view of Wand. Claims 5, 6 and 20 depend from claim 1. Dahlgren and Wand do not address the shortcomings of Daikin

discussed above in connection with claim 1. Claims 5, 6 and 20 are therefore submitted to be allowable for at least the same reasons as claim 1.

Claim 7 was rejected under 35 U.S.C. 103(a) as being unpatentable over Daikin in view of Alfa-Laval. Claim 7 depends from claim 1. Alfa-Laval does not address the shortcomings of Daikin discussed above in connection with claim 1. Claim 7 is therefore submitted to be allowable for at least the same reasons as claim 1.

Claims 8 and 22 were rejected under 35 U.S.C. 103(a) as being unpatentable over Daikin in view of Joel. Claims 8 and 22 depend from claim 1. Joel does not address the shortcomings of Daikin discussed above in connection with 1. Claims 8 and 22 are therefore submitted to be allowable for at least the same reasons as claim 1.

Claims 24, 25 and 27 were rejected under 35 U.S.C. 103(a) as being unpatentable over Daikin in view of Leuthner. Claims 24, 25 and 27 depend from claim 1. Leuthner does not address the shortcomings of Daikin discussed above in connection with claim 1. Claims 24, 25 and 27 are therefore submitted to be allowable for at least the same reasons as claim 1.

NEW CLAIMS

New claims 33-35 depend from claim 1 and are submitted to be allowable for at least the same reasons as claim 1. Claim 34 further recites that the plates have first and second opposite side edges and first and second opposite end edges and that the wavy profile extends from the first side edge to the second side edge and from the first end edge to the second end edge. A heat exchanger having a wavy profile as claimed

that extends from one side to the other and from one end to the other is not shown in the art of record, and claim 34 further distinguishes over the art for this reason.

Claim 36 recites a heat exchanger for motor vehicles formed from interconnected plates, there being formed between the plates cavities connected to at least one inflow line and at least one outflow line to define first and second alternating flow paths. Claim 36 also recites that the plates are embossed with a zig-zag profile comprising leg portions connected by curved portions, the leg portions in section comprising ridges having flat tops and valleys having flat bottoms, and that portions of the flat tops of a first one of the plates contacting portions of the flat bottoms of an adjacent one of the plates at contact points. The contact points are arranged to prevent fluid from flowing between the first one of the plates and the second one of the plates rectilinearly from the inflow line to the outflow line. A heat exchanger having an embossed profile as claimed is not shown or suggested by the art of record, and new claim 36 is submitted to be allowable over the art of record for at least this reason.

CONCLUSION

Each issue raised in the Office Action dated December 11, 2009, has been addressed, and it is believed that claims 1-36 are in condition for allowance. Wherefore, reconsideration and allowance of these claims is earnestly solicited. If the examiner believes that any additional changes would place the application in better condition for allowance, the examiner is invited to contact the undersigned attorney at the telephone number listed below.

Deposit Account Authorization

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 50-3828 and please credit any excess fees to such deposit account.

Respectfully submitted,



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Date: March 10, 2010